



FILE COPY

Mr. Cody Walker
Associate Engineering Geologist
North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

July 22, 2005

Re: Second Quarter 2005 Groundwater Monitoring Report
Cedar Stock Resort
45810 State Highway 3
Trinity Center, California
RWQCB case # 1TTR033
Blue Rock Project No. NC-017

Dear Mr. Walker,

This report presents the results of the Second Quarter 2005 groundwater monitoring activities at Cedar Stock Resort located at 45810 State Highway 3, Trinity Center, California. (site) (Figure 1), and was prepared for Mr. Cliff Johanssen of Boots and Boats Inc. by Blue Rock Environmental Inc. (Blue Rock).

Background

Site Description

Cedar Stock Resort is located adjacent to Trinity Lake in Trinity County California (Figure 1). The site is bounded by open forest land with some residential development. Cedar Stock Resort consists of a developed dock and additional parking areas around the former UST locations and a Lodge/Restaurant above the site. There are also various buildings near the site used for rental cabins, boat storage and residences. The resort uses a septic system located approximately 500 feet north of the former UST locations for sewage disposal. Drinking water is supplied by a well located about 1/4 mile north of the former USTs. The two gasoline USTs were previously located on the eastern side of the marina parking area (Figure 2).

The site slopes moderately to steeply toward the east. The Trinity Lake shoreline (high water line at 2,370 feet elevation above mean sea level (msl)) comprises the eastern boundary of the property. To the west, the property rises to 2,600 feet in elevation.

Site History

Cedar Stock Resort was developed in 1962 as a boat launching and storage facility and resort destination. The site was leased from the U.S. Department of Agriculture (USDA) by Boots and Boats Inc. in the early 1970s. In 1980 or 1981, two 5,000-gallon underground gasoline storage tanks (UST) were installed to supply fuel to boat traffic on Trinity Lake. Fuel was delivered via above ground piping to dispensers located on the dock.

Site Investigation and Corrective Action History

In September 1994, the two 5,000 gallon USTs were removed by Evans Construction (Evans). As evidenced by analysis of soil removed from the excavation, concentrations of total petroleum hydrocarbons as gasoline (TPHg) ranged to 2,000 parts per million (ppm). The tank cavity was overexcavated to a depth of approximately 40 feet below ground surface (bgs) to remove hydrocarbons acting as a source of groundwater contamination. Due to adverse site conditions no further overexcavation was performed. The excavation was subsequently backfilled with clean fill.

In an effort to evaluate the lateral extent of petroleum hydrocarbon impact to site soil and groundwater, Clearwater Group (Clearwater) supervised the installation of five soil borings (B-1 to B-5) and four monitoring wells (MW-1 to MW-4) in 1996 and 1997. Gasoline constituent contamination in soil and groundwater were detected in boring B-1 approximately 25 feet downgradient of the former excavation. Analysis of groundwater samples indicated concentrations of TPHg at 2,400 micrograms per liter ($\mu\text{g}/\text{L}$), MTBE at 2,000 $\mu\text{g}/\text{L}$, and benzene at 940 $\mu\text{g}/\text{L}$. A grab groundwater sample collected from boring B-5 (40 feet northeast of the UST excavation) indicated concentrations of TPHg at 1,900 $\mu\text{g}/\text{L}$, MTBE at 41 $\mu\text{g}/\text{L}$, and benzene at 160 $\mu\text{g}/\text{L}$. Quarterly groundwater monitoring and sampling of the monitoring wells was performed through the remainder of 1997 and continued through 1998. As the site was considered a low priority by the North Coast Regional Water Quality Control Board (NCRWQCB), no direction for additional quarterly monitoring was provided. Subsequently, no quarterly monitoring was performed in 1999. At the direction of Dean Prat of the NCRWQCB quarterly groundwater monitoring was resumed in January 2000.

On May 4, 2000, in an effort to better evaluate groundwater flow characteristics at the site, Clearwater supervised Diamond Core Drilling of Redding, California in the installation of two additional monitoring wells (MW-5 and MW-6) to the north and east of the former excavation. Well installation activities were approved verbally by Mr. Dean Pratt of the NCRWQCB. Results of this investigation are presented in Clearwater's *Monitoring Well Installation and Groundwater Monitoring Report Second Quarter 2000* dated July 18, 2000. Well constructionn data are presented in Table 1.

On March 4 and 5, 2002, Clearwater supervised, Mitchell Drilling Environmental of Rancho Cordova, California in the drilling four soil borings to a depth of approximately 60 feet bgs (Figure 2). The purpose of the proposed additional investigation was to provide the data needed for the preparation of the required Corrective Action Plan (CAP). Results of this investigation are presented in Clearwater's *Corrective Action Plan (CAP) / Sensitive Receptor Survey / Additional Investigation Report* dated April 26, 2002. In a letter dated June 4, 2002, the NCRWQCB approved the CAP which outlined soil vapor extraction (SVE) as the preferred remedial alternative to treat sorbed-phase contamination and monitored natural attenuation for treating dissolved-phase contamination and requested the submittal of a workplan to perform an SVE pilot study.

Clearwater subsequently prepared and submitted a *Workplan for Vapor Extraction Pilot Study* dated August 10, 2002. The workplan was approved in a NCRWQCB letter dated September 9, 2002. The pilot study was performed in October 2002. The results of the monitored natural attenuation study were favorable; however, the results of the SVE test were not favorable. Therefore, low vacuum SVE was not considered to be a technically viable remedial alternative. Results of the pilot study and natural attenuation feasibility study were submitted in Clearwater's *Second Quarter 2003 and Remedial Action Plan* dated July 21, 2003.

In a letter dated September 25, 2003, the NCRWQCB concurred with Clearwater's evaluation of the monitoring data and recommendation to continue natural attenuation monitoring for a one year period. In the letter, the NCRWQCB requested a summary report be submitted following a one year period and should include an estimate of time for natural attenuation to restore beneficial uses of groundwater at the site and the evaluation of at least one additional remedial alternative and a cost comparison of the remedial alternatives.

In May 2004, Blue Rock was retained to continue site activities. Blue Rock performed the Second Quarter 2004 groundwater monitoring event and subsequently submitted the *Remedial Action Plan Addendum / Summary Report / Second Quarter 2004 Groundwater Monitoring Report* dated July 20, 2004 which conveyed the data requested in the September 25, 2003, NCRWQCB letter and requested the site be evaluated for closure. The NCRWQCB denied the closure request in a letter dated September 8, 2004 and requested groundwater monitoring be performed on a semi annual basis.

Field and Laboratory Activities - Second Quarter 2005

Groundwater Monitoring Activities

On June 23, 2005 six wells (MW-1 through MW-6) were monitored and sampled. Prior to sampling, an electronic water level indicator was used to gauge depth to water in each well, accurate to within ± 0.01 -foot. A downhole dissolved oxygen (DO) meter was used to measure concentrations of DO. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized. Following recovery of water levels to at least 80% of their static levels in the other wells, groundwater samples were collected from the wells using disposable polyethylene bailers and transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox[®] wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinseate water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (Appendix A).

Groundwater Sample Analyses

Groundwater samples were analyzed by Kiff Analytical (Kiff), a DHS-certified laboratory, located in Davis, California, for the following analytes:

- TPHg, BTEX , MTBE by EPA Method 8260B

Groundwater Monitoring Results - Second Quarter 2005

Groundwater Flow Direction and Gradient

Static groundwater in the wells was present beneath the site at depths ranging from approximately 18.00 (MW-6) to 32.93 (MW-3) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevations, and to generate a groundwater elevation and gradient map. The groundwater flow direction was calculated to range from southeast at 0.1 ft/ft in the area of the former USTs and becoming northeast at 0.11 ft/ft downgradient (Figure 3). The groundwater gradient and flow direction is consistent with previous measurements.

Groundwater Contaminant Analytical Results

LNAPL:	None
TPHg concentration:	<50 µg/L (MW-2 to MW-6) to 1,800 µg/L (MW-1)
MTBE concentration:	< 0.5 µg/L (MW-3 to MW-6) to 360 µg/L (MW-1)
Benzene concentration:	< 0.5µg/L (MW-3 to MW-6) to 41 µg/L (MW-1)

Groundwater sample analytical results are shown graphically on Figures 4 and 5. Cumulative groundwater sample analytical results are summarized in Table 2. Copies of the field notes, laboratory report and chain-of-custody form are presented in Appendix A and B.

Remarks

Groundwater sample analytical results fall within historical concentration range for the site. The plume of dissolved-phase hydrocarbons appears to be stable with decreasing and/or stable concentrations of target analytes.

Natural Attenuation Monitoring Program

First Order Decay Rates

Concentrations of TPHg, benzene, and MTBE for wells MW-1 and MW-2 were plotted against time since January 2000 (the highest concentration of TPHg recorded), and an exponential curve was fitted to each plot to calculate first-order decay rates (Appendix C). Blue Rock uses the method presented by Buscheck, O'Reilly, and Nelson (1993) to calculate first-order decay rates by the following equation:

$$C(t) = C_0 e^{-(kt)}$$

Where,

$C(t)$ is concentration as a function of time (t)

C_0 = is concentration as $t = 0$

k = is the decay rate (t^{-1})

Even though the raw degradation rate is in units of day⁻¹, it is typically converted to units of percent/day (by multiplying the coefficient "k" by 100) for the ease of discussion.

Since January 2000, TPHg first-order decay rates at MW-1 and MW-2 were 0.09 %/day and 0.33%/day respectively, MTBE first-order decay rates at MW-1 and MW-2 were 0.07 %/day, and 0.38 %/day, respectively, and first order decay rates for benzene at MW-1 and MW-2 were 0.26 %/day and 0.57 %/day, respectively. The first-order decay rates calculated for target analytes in selected monitoring wells correlate with the lower end of published values, which typically range from 0.1% to 1%/day (Buscheck, O'Reilly, and Nelson, 1993). While these first-order decay rates indicate the groundwater quality goals are met, or will be met in the near future, it does not appear TPHg or MTBE in MW-1 will be reach groundwater quality goals within the next five years.

Observed Dissolved-Phase Mass Reduction

Blue Rock calculated the current dissolved-phase mass based on the groundwater analytical data obtained this quarter. Current calculations for the dissolved-phase mass for June 2005 indicate that approximately 0.41 lbs. (0.067 gallons) of TPHg and 0.0034 lbs (0.0055 gallons) of MTBE remain dissolved in groundwater beneath the site. Blue Rock plotted the mass of dissolved-phase TPHg and MTBE vs. time since the monitored natural attenuation program was initiated (Appendix D) and an exponential curve was fitted to each plot. Based on these calculations, the dissolved-phase mass of TPHg and MTBE continues to decline at significant rates since the monitored natural attenuation program was initiated. Since natural attenuation monitoring began, the TPHg and MTBE dissolved-phase masses have decreased at rates of 0.16 %/day and 0.5 %/day, respectively.

Additionally, it should be noted that the plume of residual dissolved-phase gasoline range hydrocarbons remains stable with no significant migration. This has been evidenced by concentrations of target analytes below or slightly above laboratory detection limits in downgradient and cross gradient monitoring points for the duration of the quarterly groundwater monitoring program.

Conclusions and Recommendations

- The dissolved-phase plume continues to remain stable and does not appear to be migrating. However, while the first-order decay rates for concentrations show ongoing decline over time, the trend lines indicate that groundwater quality goals may not be met with the next five years for some constituents.
- In our *Remedial Action Plan Addendum*, dated July 20, 2004, Blue Rock identified High-Vacuum Dual-Phase Extraction (HDPE) as the most promising remedial technology for the subsurface conditions, but concluded that the cost of a full-scale HDPE system installation and operation did not appear to be justified in light of the limited contaminant mass present (i.e. ~122 lbs of TPHg in soil) and the documented natural attenuation of contaminants. Since that time, current investigation and monitoring data suggest that natural attenuation alone may not result in timely achievement of groundwater quality goals, yet the estimated residual contaminant mass still does not appear to warrant the cost for installation of a full-scale HDPE remedial system. Therefore, Blue Rock recommends performing temporary “hot-spot” remediation using a Mobile HDPE rig. The Mobile HDPE system will be used to extract soil vapor and groundwater from “hot” wells for a period of approximately 5 days. Groundwater samples should be collected from the wells shortly before and after the test to evaluate the efficacy of temporary “hot-spot” treatment. If results are favorable, it may be useful to perform several of these Mobile HDPE remedial events on a monthly or bi-monthly basis as a remedial polisher to bring dissolved-phase concentrations near groundwater quality goals for future site closure.
- The site is currently being monitored on a semi-annual basis per the NCRWQCB directives. The next quarterly sampling event is scheduled for December 2005. Groundwater samples will be analyzed for TPHg, BTEX and MTBE by EPA Method 8260B.

References

- Buscheck, T.E., O'Reilly, K.T., and Nelson, S.N. 1993. *Evaluation of Intrinsic Bioremediation at Field Sites*. Proceedings of the Conference of Petroleum Hydrocarbons and Organic Chemicals in Ground Water, National Groundwater Association/API, Houston, TX. November 10-12.

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

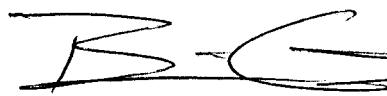
Sincerely,
Blue Rock Environmental, Inc.

Prepared by:

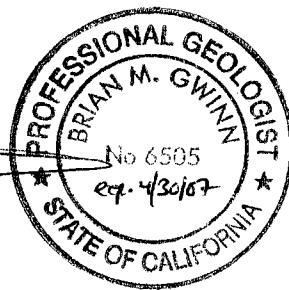


Andrew LoCicero
Project Scientist

Reviewed by:



Brian Gwinn, PG
Principal Geologist



Attachments:

- Table 1: Well Construction Data
Table 2: Groundwater Elevation and Analytical Data
Table 3: Intrinsic Bioremediation Data
Figure 1: Site location Map
Figure 2: Site Plan
Figure 3: Groundwater Elevations and Gradient - June 23, 2005
Figure 4: Dissolved-Phase TPHg Distribution - June 23, 2005
Figure 5: Dissolved-Phase MTBE Distribution - June 23, 2005
Figure 6: Intrinsic Bioremediation Data - June 23, 2005

- Appendix A: Blue Rock Gauge/Purge Calculations and Well Purging Data field sheets
Appendix B: Laboratory Analytical Report and Chain-of-Custody Form
Appendix C: First Order Decay Rate Graphs
Appendix D: Dissolved-Phase Mass Calculations and Graphs

cc:

Cliff Johanssen
45810 Highway 3
Trinity Center, CA 96091

Rhonda Bowers
Environmental Engineer
United States Forest Service
2400 Washington Ave.
Redding, CA 96001

Mr. Peter Hettke
Trinity County Environmental
Health Department
PO Box 476
Weaverville, CA 96093

Mr. Howard C. Rice
359 Spring Beauty Ct.
Windsor, CA 95492

J. Sharon Heywood
Forest Supervisor
C/O USDA, Forest Service
Shasta-Trinity National Forest
2400 Washington Ave.
Redding, CA 96001

TABLES

Table 1
WELL CONSTRUCTION DATA
Cedar Stock Resort
45180 State Highway 3
Trinity Center, California
Project No. NC-017

Well Identification	Date Installed	Installed by	Casing Diameter (inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement (feet)
MW-1	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-2	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-3	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-4	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-5	8/30/00	Clearwater	2	35	0-15	15-35	0.02	14-35	12-14	0-12
MW-6	8/30/00	Clearwater	2	35	0-15	15-35	0.02	14-35	12-14	0-12

Table 2
GROUNDWATER ELEVATION AND ANALYTICAL DATA
Cedar Stock Resort
45810 State Highway 3
Trinity Center, California
Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-1	11/23/97	2383.55	28.41	2355.14	4,500	3,100	11	13	36	2,200	--	--	--	--	--	--
	12/22/97	2383.55	29.06	2354.49	--	--	--	--	--	--	--	--	--	--	--	--
Screen	2/1/98	2383.55	31.46	2352.09	--	--	--	--	--	--	--	--	--	--	--	--
20'-40'	2/26/98	2383.55	34.36	2349.19	2,300	65	<0.5	0.6	<0.5	390	--	--	--	--	--	--
	3/14/98	2383.55	32.68	2350.87	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2383.55	26.59	2356.96	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2383.55	24.12	2359.43	910	180	7.2	1.3	6.7	110	--	--	--	--	--	--
	6/6/98	2383.55	24.79	2358.76	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2383.55	22.23	2361.32	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2383.55	15.81	2367.74	95	25	<0.5	<0.5	0.65	26	--	--	--	--	--	--
	10/2/98	2383.55	16.44	2367.11	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2383.55	23.77	2359.78	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/98	2383.55	21.18	2362.37	1,100	260	4.4	5.6	7.3	95	--	--	--	--	--	--
	1/11/00	2383.55	23.25	2360.30	17,000	4,600	27	320	254	1,700	--	--	--	--	--	--
	5/4/00	2383.55	18.29	2365.26	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/00	2383.55	15.97	2367.58	3,140	2,250	6.9	62	68	861	--	--	--	--	--	--
	9/26/00	2383.55	21.75	2361.80	11,900	4,750	17	174	127	2,930	--	--	--	--	--	--
	12/22/00	2383.55	25.49	2358.06	4,890	1,620	7.6	28.2	36.5	1,860	--	--	--	--	--	--
	3/30/01	2383.55	27.05	2356.50	1,900	1,130	2.5	1.6	3.1	939	--	--	--	--	--	--
	6/13/01	2383.55	26.04	2357.51	4,700	1,400	3	2.1	3.7	1,100	--	--	--	--	--	--
	9/21/01	2383.55	28.73	2354.82	4,300	1,400	<5	<5	<5	1,200	84	<5	<5	<5	<2,000	<50
	12/15/01	2383.55	36.39	2347.16	410	15	<1	<1	<1	360	370	<1	<1	<1	<1,700	<10
	3/15/02	2383.55	29.76	2353.79	2,400	440	<5	<5	<5	1,400	--	--	--	--	--	--
	6/26/02	2383.55	26.78	2356.77	5,600	1,600	<10	<10	<10	1,700	--	--	--	--	--	--
	9/25/02	2383.55	29.38	2354.17	6,400	1,300	<10	<10	<10	1,800	--	--	--	--	--	--
	12/12/02	2383.55	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
(3/20/2003)	2421.70	32.42	2389.28	<500	<5	<5	<5	<5	<5	1,400	--	--	--	--	--	--
	6/11/03	2421.70	23.62	2398.08	420	23	<1	<1	<1	550	--	--	--	--	--	--
	9/24/03	2421.70	23.47	2398.23	2,300	220	<1.5	<1.5	<1.5	710	--	--	--	--	--	--
	12/15/03	2421.70	27.95	2393.75	2,600	120	<2	<2	<2	940	--	--	--	--	--	--
	3/4/04	2421.70	24.41	2397.29	2,000	44	<1	<1	<1	510	--	--	--	--	--	--
	6/14/04	2421.70	20.17	2401.53	1,500	88	<1.5	3.2	<1.5	440	--	--	--	--	--	--
	12/15/04	2421.70	30.38	2391.32	1,400	46	<1	<1	<1	560	--	--	--	--	--	--
	6/23/05	2421.70	24.86	2396.84	1,800	41	<0.5	<0.5	<0.5	360	--	--	--	--	--	--
MW-2	11/23/97	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/97	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
Screen	2/1/98	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
20'-40'	2/26/98	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/98	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2380.71	24.44	2356.27	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2380.71	22.21	2358.50	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	6/6/98	2380.71	22.63	2358.08	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2380.71	21.20	2359.51	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2380.71	17.90	2362.81	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	10/2/98	2380.71	17.21	2363.50	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2380.71	26.50	2354.21	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/98	2380.71	27.75	2352.96	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	1/11/00	2380.71	33.57	2347.14	880	34	<1	<0.5	<1	170	--	--	--	--	--	--
	5/4/00	2380.71	16.67	2364.04	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
GROUNDWATER ELEVATION AND ANALYTICAL DATA
Cedar Stock Resort
45810 State Highway 3
Trinity Center, California
Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	Methanol ($\mu\text{g/L}$)	Ethanol ($\mu\text{g/L}$)
MW-2	6/1/00	2380.71	12.70	2368.01	<50	<0.3	<0.3	<0.3	0.6	<2	--	--	--	--	--	--
	9/26/00	2380.71	33.79	2346.92	1,430	74	<0.3	<0.3	<0.6	562	--	--	--	--	--	--
Screen	12/22/00	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
20'-40'	3/30/01	2380.71	39.18	2341.53	1470	39.5	<0.3	<0.3	<0.6	453	--	--	--	--	--	--
	6/13/01	2380.71	32.95	2347.76	520	19	<1	<1	1.1	390	--	--	--	--	--	--
	9/21/01	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/26/02	2380.71	34.02	2346.69	300	11	<0.5	<0.5	<0.5	280	--	--	--	--	--	--
	9/25/02	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/12/02	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
(3/20/2003)	2418.91	36.94	2381.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5	85	--	--	--	--	--	--
	6/11/03	2418.91	17.01	2401.90	<50	<0.5	<0.5	<0.5	<0.5	39	--	--	--	--	--	--
	9/24/03	2418.91	31.00	2387.91	180	4.1	<0.5	<0.5	<0.5	82	--	--	--	--	--	--
	12/15/03	2418.91	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	2418.91	28.68	2390.23	78	1.8	<0.5	<0.5	<0.5	46	--	--	--	--	--	--
	6/14/04	2418.91	22.21	2396.70	<50	<0.5	<0.5	<0.5	<0.5	1	--	--	--	--	--	--
	12/15/04	2418.91	39.94	2378.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/23/05	2418.91	28.11	2390.80	<50	0.74	<0.5	<0.5	<0.5	12	--	--	--	--	--	--
MW-3	11/23/97	2388.95	38.75	2350.20	<50	<0.5	<0.5	<0.5	<2	16	--	--	--	--	--	--
	12/22/97	2388.95	39.8	2349.15	--	--	--	--	--	--	--	--	--	--	--	--
Screen	2/1/98	2388.95	39.64	2349.31	--	--	--	--	--	--	--	--	--	--	--	--
20'-40'	2/26/98	2388.95	36.06	2352.89	<50	<0.5	0.6	0.7	<0.5	<5	--	--	--	--	--	--
	3/14/98	2388.95	34.76	2354.19	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2388.95	29.06	2359.89	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2388.95	27.25	2361.70	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	6/6/98	2388.95	28.14	2360.81	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2388.95	26.18	2362.77	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2388.95	20.61	2368.34	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	10/2/98	2388.95	19.97	2368.98	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2388.95	26.24	2362.71	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/98	2388.95	27.58	2361.37	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	1/11/00	2388.95	30.96	2357.99	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	5/4/00	2388.95	23.42	2365.53	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/00	2388.95	20.53	2368.42	<50	<0.3	<0.3	<0.3	<0.6	3	--	--	--	--	--	--
	9/26/00	2388.95	28.92	2360.03	<50	<0.3	<0.3	<0.3	<0.6	9.6	--	--	--	--	--	--
	12/22/00	2388.95	35.03	2353.92	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
	3/30/01	2388.95	36.96	2351.99	<50	<0.3	<0.3	<0.3	<0.6	5.2	--	--	--	--	--	--
	6/13/01	2388.95	34.22	2354.73	<50	<0.5	<0.5	<0.5	<0.5	1.2	--	--	--	--	--	--
	9/21/01	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/26/02	2388.95	35.43	2353.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	9/25/02	2388.95	39.82	2349.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/12/02	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
(3/20/2003)	2427.12	39.11	2388.01	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/11/03	2427.12	28.24	2398.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	9/24/03	2427.12	30.44	2396.68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/15/03	2427.12	37.56	2389.56	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/4/04	2427.12	32.01	2395.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/14/04	2427.12	26.07	2401.05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.72	--	--	--	--	--
	12/15/04	2427.12	39.88	2387.24	<50	<0.5	<0.5	<0.5	<0.5	1	--	--	--	--	--	--
	6/23/05	2427.12	32.93	2394.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--

Table 2
GROUNDWATER ELEVATION AND ANALYTICAL DATA

Cedar Stock Resort
 45810 State Highway 3
 Trinity Center, California
 Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	Methanol ($\mu\text{g/L}$)	Ethanol ($\mu\text{g/L}$)
MW-4	11/23/97	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/97	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
Screen	2/1/98	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
20'-40'	2/26/98	2373.00	30.35	2342.65	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	3/14/98	2373.00	23.71	2349.29	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2373.00	21.16	2351.84	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2373.00	17.94	2355.06	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	6/6/98	2373.00	16.07	2356.93	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2373.00	15.75	2357.25	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2373.00	12.38	2360.62	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	10/2/98	2373.00	11.94	2361.06	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2373.00	21.04	2351.96	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/98	2373.00	22.21	2350.79	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	1/11/00	2373.00	28.38	2344.62	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
	5/4/00	2373.00	9.81	2363.19	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/00	2373.00	5.31	2367.69	<50	<0.3	<0.3	<0.3	0.8	<2	--	--	--	--	--	--
	9/26/00	2373.00	27.65	2345.35	<50	<0.3	<0.3	<0.3	<0.60	<2	--	--	--	--	--	--
	12/22/00	2373.00	33.94	2339.06	<50	<0.3	<0.3	<0.3	<0.60	<2	--	--	--	--	--	--
	3/30/01	2373.00	33.21	2339.79	<50	<0.3	<0.3	<0.3	<0.60	4.5	--	--	--	--	--	--
	6/13/01	2373.00	27.22	2345.78	<50	<0.5	<0.5	<0.5	<0.5	0.85	--	--	--	--	--	--
	9/21/01	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2373.00	36.47	2336.53	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/26/02	2373.00	28.11	2344.89	<50	<0.5	<0.5	<0.5	<0.5	0.64	--	--	--	--	--	--
	9/25/02	2373.00	38.39	2334.61	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/12/02	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
(3/20/2003)	2411.13	31.24	2379.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/11/03	2411.13	8.30	2402.83	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	9/24/03	2411.13	24.83	2386.30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/15/03	2411.13	33.11	2378.02	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/4/04	2411.13	22.41	2388.72	<50	<0.5	<0.5	<0.5	<0.5	1.3	--	--	--	--	--	--
	6/14/04	2411.13	16.55	2394.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/15/04	2411.13	39.43	2371.70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/23/05	2411.13	22.25	2388.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-5	5/4/00	2376.88	22.92	2353.96	<50	<0.5	<0.5	<0.5	<0.5	<10	<1	<1	<1	--	--	--
	6/1/00	2376.88	12.02	2364.86	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
Screen	9/26/00	2376.88	22.87	2354.01	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
15'-35'	12/22/00	2376.88	30.72	2346.16	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
	3/30/01	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/01	2376.88	29.23	2347.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	9/21/01	2376.88	31.54	2345.34	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/26/02	2376.88	30.84	2346.04	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	9/25/02	2376.88	31.52	2345.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/12/02	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
(3/20/2003)	2415.04	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/03	2415.04	22.50	2392.54	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	9/24/03	2415.04	22.56	2392.48	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/15/03	2415.04	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	2415.04	26.24	2388.80	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/14/04	2415.04	18.92	2396.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/15/04	2415.04	31.56	2383.48	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/23/05	2415.04	18.23	2396.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--

Table 2
GROUNDWATER ELEVATION AND ANALYTICAL DATA
Cedar Stock Resort
45810 State Highway 3
Trinity Center, California
Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	Methanol ($\mu\text{g/L}$)	Ethanol ($\mu\text{g/L}$)
MW-6	5/4/00	2379.53	22.11	2357.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1	<1	<1	--	--
	6/1/00	2379.53	9.71	2369.82	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
Screen	9/26/00	2379.53	24.88	2354.65	<50	<0.3	<0.3	<0.3	<0.6	2.3	--	--	--	--	--	--
15'-35'	12/22/00	2379.53	29.47	2350.06	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
	3/30/01	2379.53	27.93	2351.60	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
	6/13/01	2379.53	24.48	2355.05	<50	<0.5	<0.5	<0.5	<0.5	2.1	--	--	--	--	--	--
	9/21/01	2379.53	32.21	2347.32	<50	<0.5	<0.5	<0.5	<0.5	1.9	--	--	--	--	--	--
	12/15/01	2379.53	28.43	2351.10	<50	<0.5	<0.5	<0.5	<0.5	3.2	<5	<0.5	<0.5	<0.5	--	--
	3/15/02	2379.53	24.49	2355.04	<50	<0.5	<0.5	<0.5	<0.5	1.5	--	--	--	--	--	--
	6/26/02	2379.53	24.85	2354.68	<50	<0.5	<0.5	<0.5	<0.5	1.5	--	--	--	--	--	--
	9/25/02	2379.53	32.13	2347.40	<50	<0.5	<0.5	<0.5	<0.5	1.8	--	--	--	--	--	--
	12/12/02	2379.53	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
(3/20/2003)	2417.72	24.79	2392.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	--	--	--	--	--	--
	6/11/03	2417.72	11.77	2405.95	<50	<0.5	<0.5	<0.5	<0.5	1.6	--	--	--	--	--	--
	9/24/03	2417.72	22.95	2394.77	<50	<0.5	<0.5	<0.5	<0.5	1.5	--	--	--	--	--	--
	12/15/03	2417.72	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	2417.72	No Access	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/14/04	2418.72	15.91	2402.81	<50	<0.5	<0.5	<0.5	<0.5	1.4	--	--	--	--	--	--
	12/15/04	2418.72	18.28	2400.44	<50	<0.5	<0.5	<0.5	<0.5	1.8	--	--	--	--	--	--
	6/23/05	2418.72	18.00	2400.72	<50	<0.5	<0.5	<0.5	<0.5	1	--	--	--	--	--	--
Taste & odor threshold				5	--	42	29	17	--							
MCL				--	1	150	750	1,750	5							
NCRWQCB Cleanup Goals				<50	0.50	42	29	17	5							

Notes :

TOC: Top of casing referenced to US Bureau of Reclamation Trinity Lake level (2293.78 feet above mean sea level).

DTW: Depth to water as referenced to benchmark.

GWE: Ground water elevation as referenced to benchmark

$\mu\text{g/L}$ = micrograms per liter

--: Not analyzed, available, or applicable

<## : Not detected at or below the method detection limit as shown.

MCL: Maximum contaminant level, and enforceable drinking water standard

Taste & odor threshold: A drinking water standard

TPHg total petroleum hydrocarbons as gasoline by EPA Method 8260B

MTBE:Methyl tertiary butyl ether by EPA Method 8260B

TBA: Tert butanol by EPA Method 8260B

DIPE: Di isopropyl ether by EPA Method 8260B

ETBE: Ethyl tertiary butyl ether by EPA Method 8260B

TAME: tertiary amyl methyl ether by EPA Method 8260B

NCRWQCB: North Coast Regional Water Quality Control Board

Sample date in parentheses indicated new wellhead survey per Geotracker

Table 3
INTRINSIC BIOREMEDIATION DATA

Cedar Stock Resort
45810 State Highway 3
Trinity Center, California
Project No. NC-17

Well No.	Date	Total										Ortho	Ferrous	Heterotrophic	Aerobic	Anaerobic		
		TPHg (µg/L)	MTBE (µg/L)	D.O.* (mg/L)	Eh* (mV)	pH*	Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Phosphate (mg/L)				Plate Count (CFU/mL)	Hydrocarbon Degraders (CFU/mL)	Hydrocarbon Degraders (CFU/mL)	
MW-1	9/25/02	6,400	1,800	4.01	107.3	5.20	87	0.54	0.21	0.84	<0.5	--	4.98	36	--	5,000	500,000	100
	12/12/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/20/03	<500	1,400	1.96	98	5.94	88	<0.5	<0.1	0.82	<0.5	<0.1	<2	17	<3	7,000	60,000	1,000
	6/11/03	420	550	1.96	305	5.86	74	<0.5	0.58	1.3	<0.5	<0.1	5.2	16	<3	200,000 / 35,000	50,000	35,000
	9/24/03	2,300	710	1.79	270.5	6.04	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/03	2,600	940	1.78	237.1	6.19	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	2,000	510	1.74	218.0	6.44	--	--	--	--	--	--	--	--	--	--	--	--
	6/14/04	1,500	440	1.58	--	5.96	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/04	1,400	560	2.09	--	6.39	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/05	1,800	360	2.68	--	5.73	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	9/25/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/12/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/20/03	<50	85	1.88	61	6.48	95	<0.5	0.21	0.82	<0.5	<0.1	3	7.9	6	20,000	4,000	500
	6/11/03	<50	39	1.88	268	6.26	73	1.1	0.17	1.10	<0.5	<0.1	4	<7	<3	20,000 / 200	600	4,000
	9/24/03	180	82	1.83	212.6	6.12	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/03	Dry no sample	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	78	46	1.88	212	6.63	--	--	--	--	--	--	--	--	--	--	--	--
	6/14/04	<50	1	1.73	--	6.20	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/04	<50	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/05	<50	12	1.91	--	5.68	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/25/02	<50	<0.5	4.40	228	5.12	--	--	--	--	--	--	--	--	--	--	--	--
	12/12/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/20/03	<50	<0.5	1.95	63	6.47	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/03	<50	<0.5	1.92	287	6.01	--	--	--	--	--	--	--	--	--	--	--	--
	9/24/03	<50	<0.5	1.91	168	6.17	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/03	<50	<0.5	1.79	262	6.22	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	<50	<0.5	1.71	242	6.47	--	--	--	--	--	--	--	--	--	--	--	--
	6/14/04	<50	0.72	1.67	--	6.10	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/04	<50	1.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/05	<50	<0.5	4.20	--	5.76	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	9/25/02	<50	<0.5	5.40	187	5.37	78	2.9	<0.10	1.1	<0.5	--	<1	<10	--	3,000	4,000	4,000
	12/12/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/20/03	<50	<0.5	1.82	69	6.38	68	2.2	0.13	0.79	<0.5	<0.1	3.2	<7	<3	3,500	550	3,000
	6/11/03	<50	<0.5	1.83	331	6.16	77	2.6	0.17	0.86	<0.5	<0.1	2.9	<7	<3	8,000 / 2,000	50	2,000
	9/24/03	<50	<0.5	1.82	314.8	6.26	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
INTRINSIC BIOREMEDIATION DATA

Cedar Stock Resort
45810 State Highway 3
Trinity Center, California
Project No. NC-17

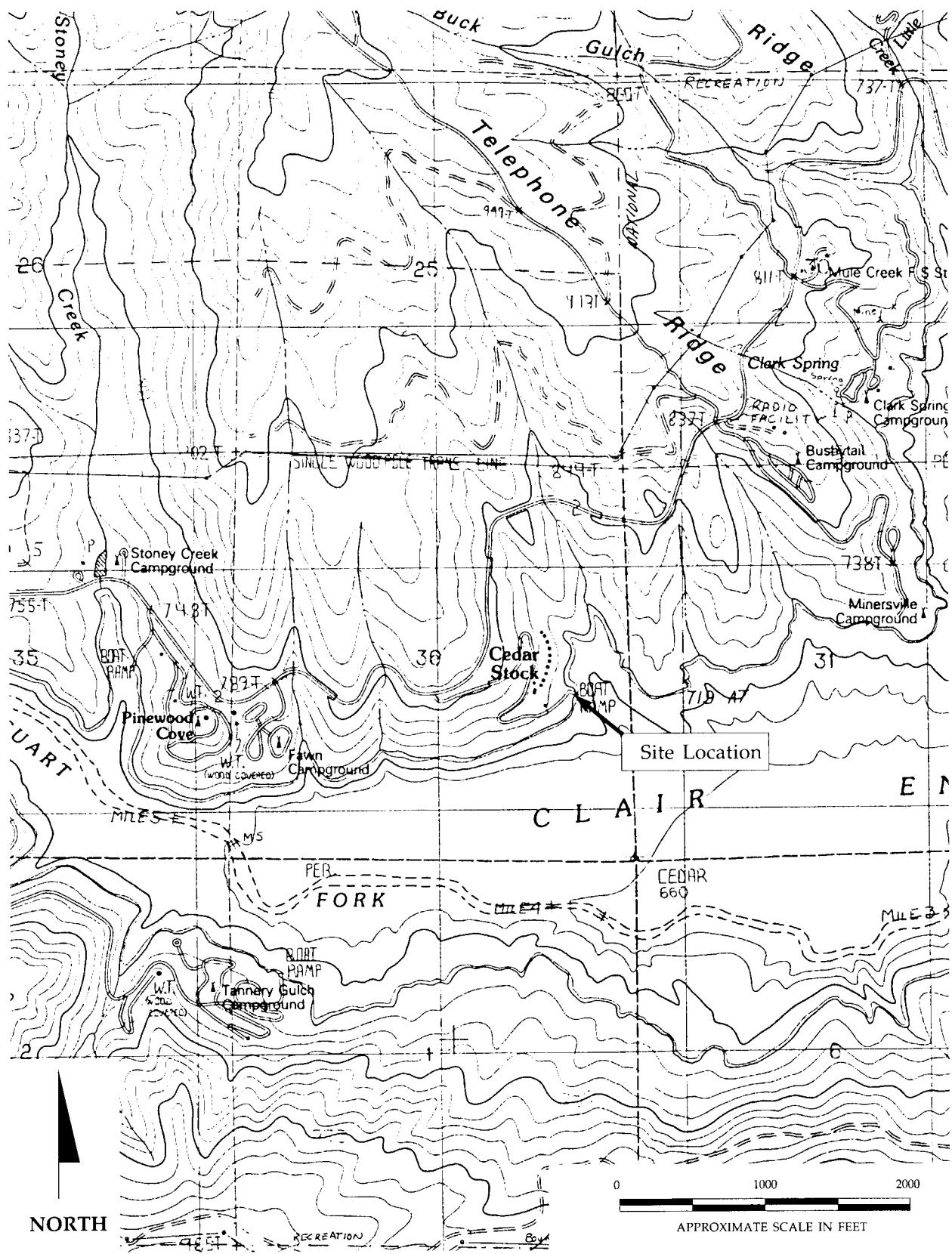
Well No.	Date	Total					Ortho			Ferrous			Heterotrophic			Aerobic Hydrocarbon	Anaerobic Hydrocarbon	
		TPHg ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	D.O.* (mg/L)	Eh* (mV)	pH*	Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Phosphate (mg/L)	Iron (mg/L)	TOC (mg/L)	COD (mg/L)	BOD (mg/L)	Plate Count (CFU/mL)	Degraders (CFU/mL)	Degraders (CFU/mL)
MW-4	12/15/03	<50	<0.5	1.72	195.1	6.08	--	--	--	--	--	--	--	--	--	--	--	
	3/4/04	<50	1.30	1.69	208	6.77	--	--	--	--	--	--	--	--	--	--	--	
	6/14/04	<50	<0.5	1.54	--	6.30	--	--	--	--	--	--	--	--	--	--	--	
	12/15/04	<50	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/23/05	<50	<0.5	3.65	--	5.79	--	--	--	--	--	--	--	--	--	--	--	
MW-5	9/25/02	<50	<0.5	5.72	196	5.26	--	--	--	--	--	--	--	--	--	--	--	
	12/12/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/20/03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/11/03	<50	<0.5	1.95	341	6.41	--	--	--	--	--	--	--	--	--	--	--	
	9/24/03	<50	<0.5	1.77	293	6.42	--	--	--	--	--	--	--	--	--	--	--	
	12/15/03	Dry no sample		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/4/04	<50	<0.5	1.83	207	6.74	--	--	--	--	--	--	--	--	--	--	--	
	6/14/04	<50	<0.5	1.48	--	6.11	--	--	--	--	--	--	--	--	--	--	--	
	12/15/04	<50	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/23/05	<50	<0.5	4.10	--	6.14	--	--	--	--	--	--	--	--	--	--	--	
MW-6	9/25/02	<50	<0.5	4.11	204	5.50	160	0.65	0.15	2.20	<0.5	--	<1	<10	--	8,000	10,000	10,000
	12/12/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/20/03	<50	2.40	1.98	67	6.37	150	<0.5	0.18	3.40	<0.5	<0.1	<2	10	<3	1,000	4,500	2,500
	6/11/03	<50	1.60	1.92	199	6.38	150	0.72	0.12	2.80	<0.5	<0.1	3.6	<7	<3	5,000 / 1,000	800	2,000
	9/24/03	<50	1.50	1.87	253.3	6.55	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/03	No accesss		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/4/04	No accesss		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/14/04	<50	1.40	1.58	--	6.08	--	--	--	--	--	--	--	--	--	--	--	
	12/15/04	<50	1.80	2.21	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/23/05	<50	1.00	3.85	--	6.0	--	--	--	--	--	--	--	--	--	--	--	

Notes

TPHg Total petroleum hydrocarbons as gasoline by EPAM 5030/8260B
 MTBE Methyl tert-butyl ether by EPA Method 8260B
 $\mu\text{g/L}$ micrograms per Liter, equivalent to parts per billion - ppb
 mg/L milligrams per Liter, equivalent to parts per million - ppm
 * Parameters measured in field and recorded on field sheets
 mV Millivolts
 CFU/mL Colony forming units per milliliter
 D.O. Dissolved oxygen measured with downhole meter
 Eh Reduction-oxidation potential measured with downhole meter
 pH pH measured with field meter
 Alkalinity by EPA Method 310.1
 Nitrate by EPA Method 353.3
 COD Chemical Oxygen Demand by EPA Method 410.4

Ammonia by EPA Method 350.2
 Sulfate by EPA Method 375.4
 Phosphate by EPA Method 365.2
 TOC Total Organic Carbon by EPA Method 415.2
 Ferrous Iron by Standard Method 3500
 BOD Biological Oxygen Demand by EPA Method 405.1
 Heterotrophic
 Plate Count Bacteria enumeration assay by Standard Method 9215B modified
 Hydrocarbon
 Degraders Bacteria enumeration assay for diesel and gasoline degradars
 "--": Not analyzed, available, or applicable
 <##> Not detected above the number indicated

FIGURES



Site Location Map

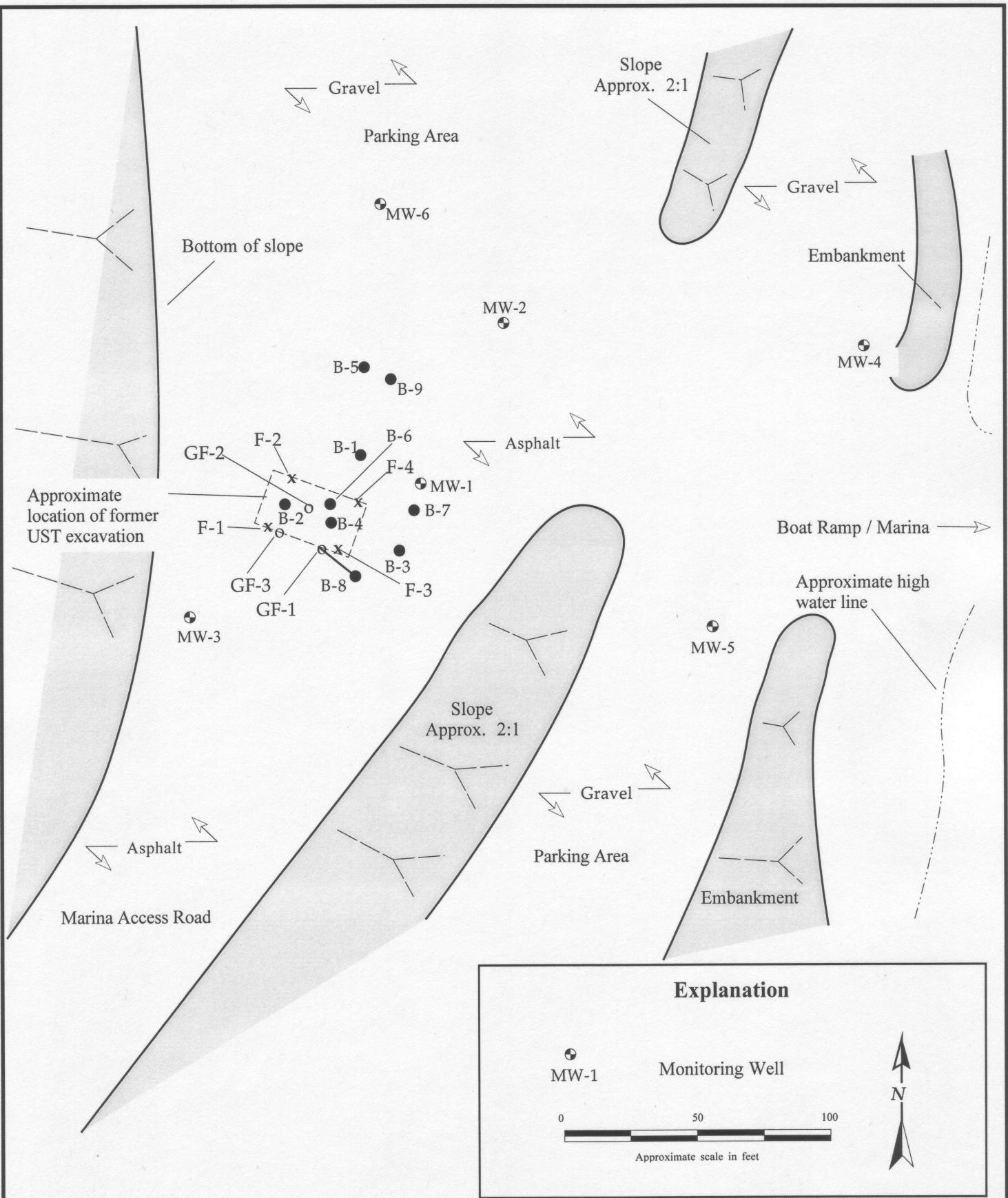
Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

**BLUE ROCK
ENVIRONMENTAL, INC.**

Project No.
NC-017

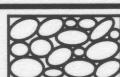
Report Date
7/05

Figure
1



Site Plan

Cedar Stock Resort
45810 State Highway 3
Trinity Center, California

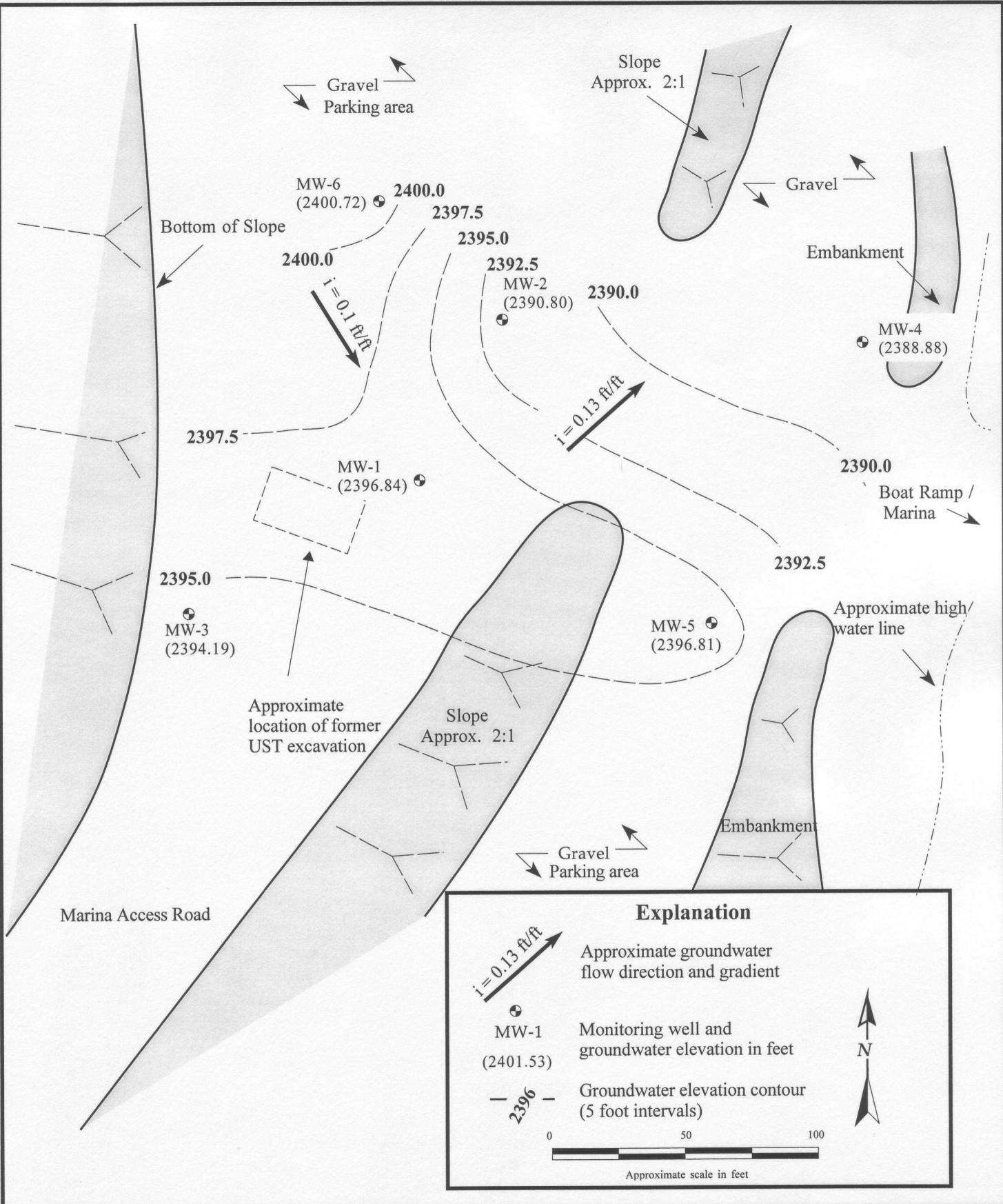


**BLUE ROCK
ENVIRONMENTAL, INC.**

Project No.
NC-17

Report Date
7/05

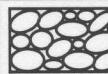
Figure
2



Groundwater Elevations and Gradient

June 23, 2005

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

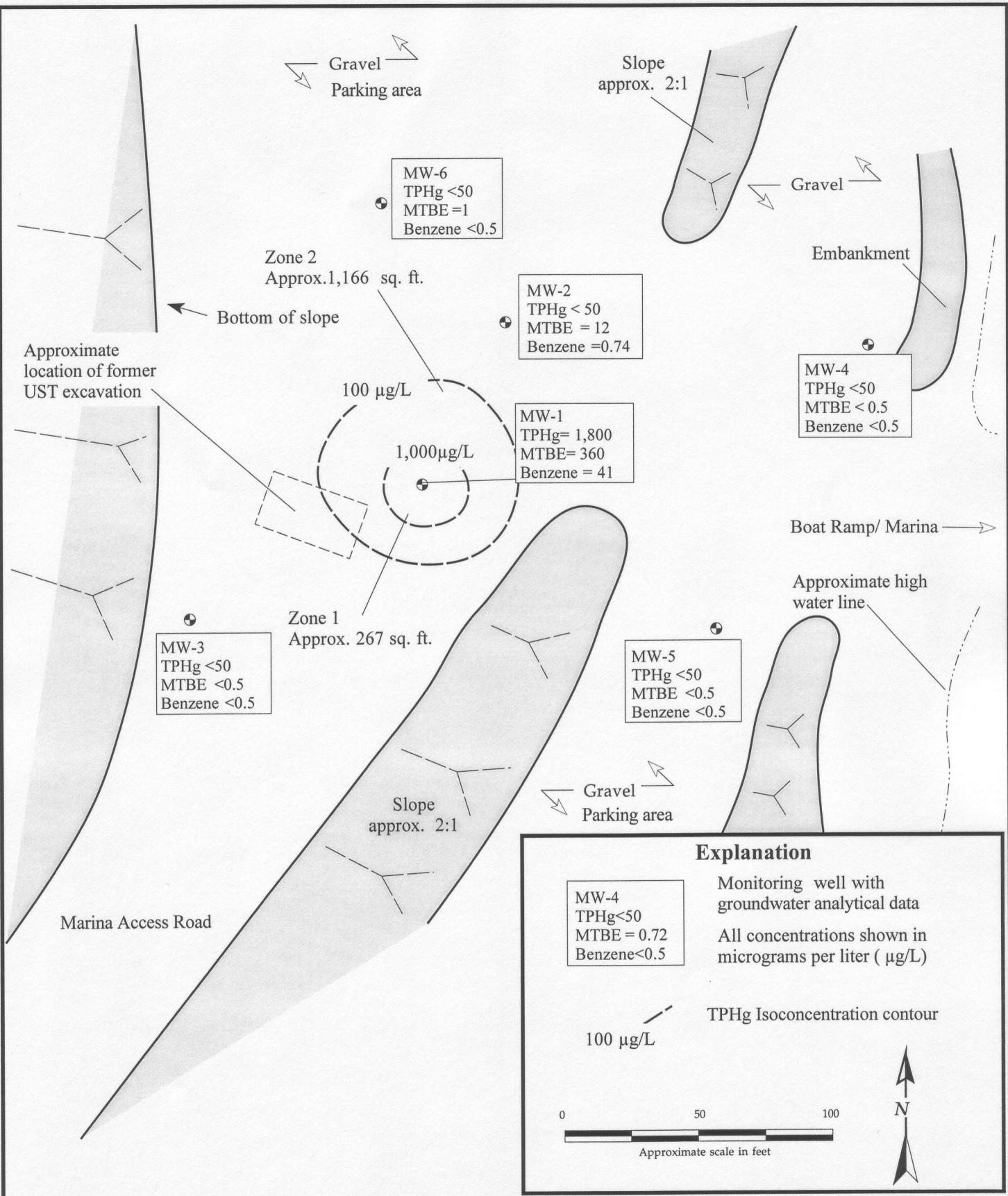


**BLUE ROCK
ENVIRONMENTAL, INC.**

Project No.
NC-17

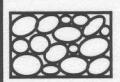
Report Date
7/05

Figure
3



**Dissolved-Phase TPHg Distribution
June 23, 2005**

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

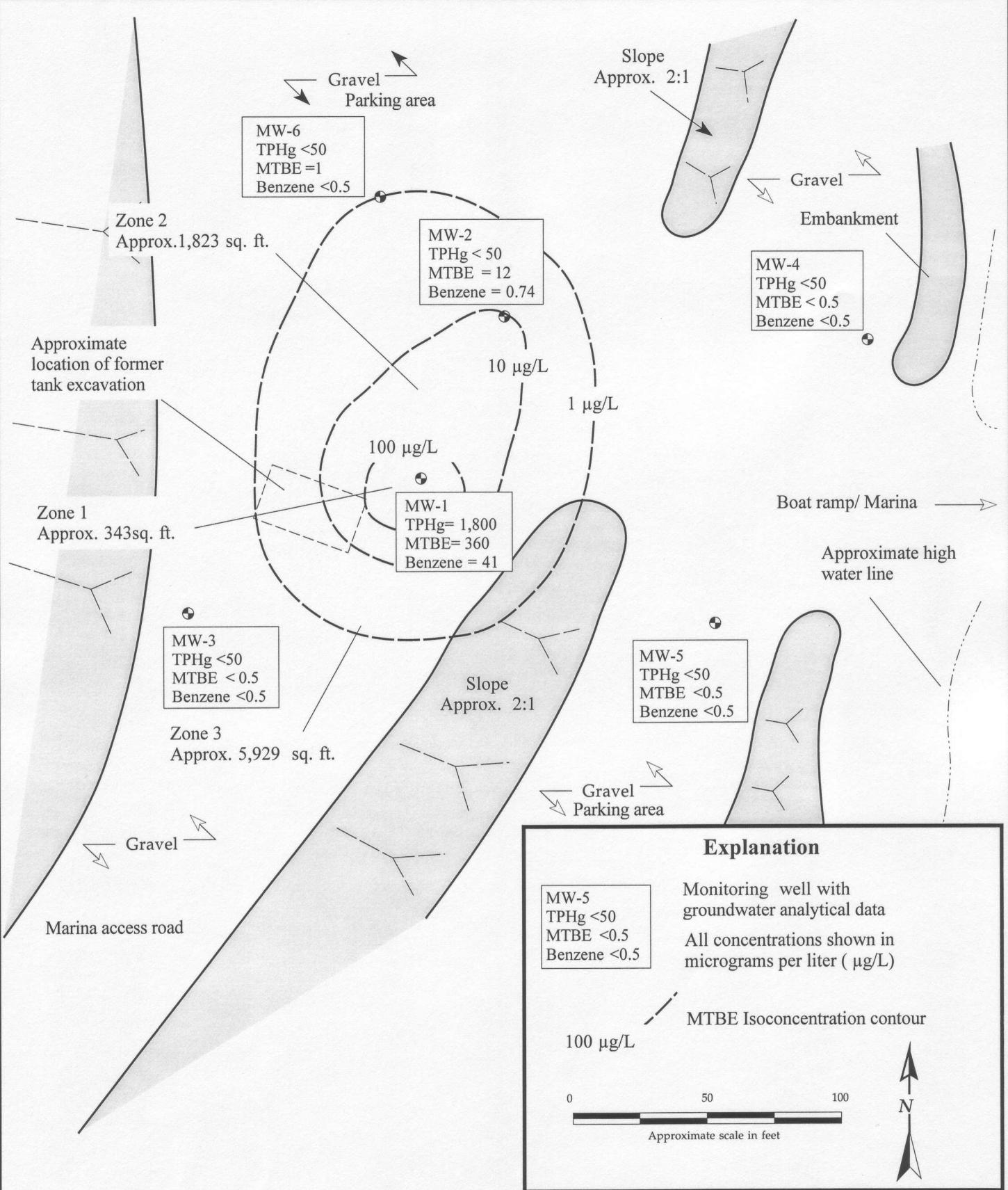


**BLUE ROCK
ENVIRONMENTAL, INC.**

Project No.
NC-17

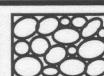
Report Date
705

Figure
4



Dissolved-Phase MTBE Distribution
June 23, 2005

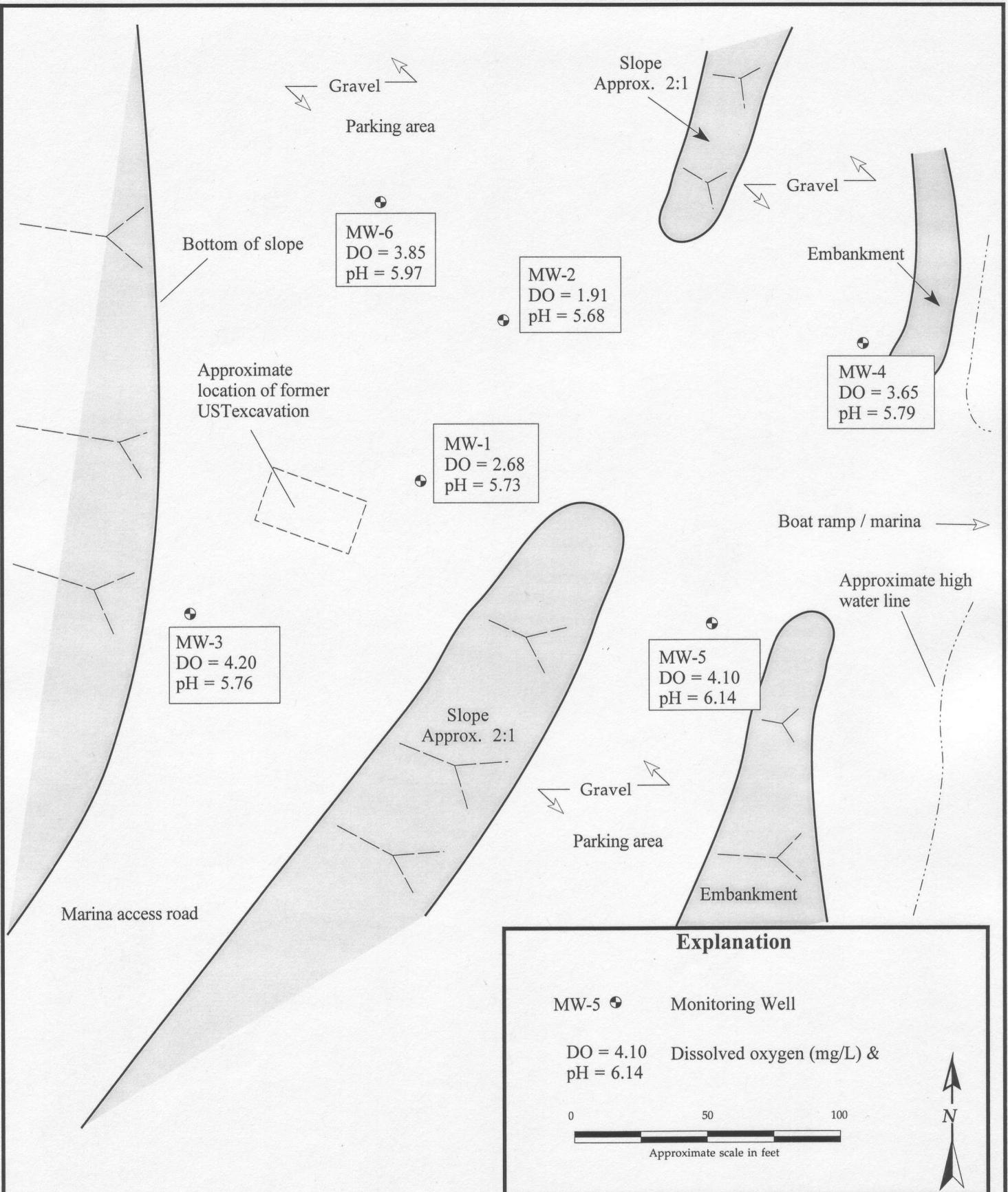
Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

 BLUE ROCK
ENVIRONMENTAL, INC.

Project No.
NC-17

Report Date
7/05

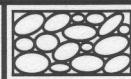
Figure
5



Intrinsic Bioremediation Data

June 23, 2005

Cedar Stock Resort
45810 State Highway 3
Trinity Center, California



**BLUE ROCK
ENVIRONMENTAL, INC.**

Project No.
NC-17

Report Date
7/05

Figure
6

APPENDIX A

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-17 Location: 45180 Hwy 3, Trinity Center Date: 6/23/05 Tech(s): JL

Explanation:

DIA. = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV,
well development 10 x CV)

SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.

4 in. dia. well cf = 0.65 gal./ft.

6 in. dia. well cf = 1.44 gal./ft.



BLUE ROCK
ENVIRONMENTAL, INC.

PURGING DATA

SHEET

1 OF 2

Job No.: NC-17

Location: 45180 Hwy 3 Trinity Center Date: 6/23/05 Tech: JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-1			---	---	---	Sample for:
Calc. purge volume	15:115	1	159	64.5	5.62	TPHg TPHd 8260
	15:120	3	214	68.4	5.80	BTEX MTBE Metals
7.28	15:25	5	234	62.4	5.78	Purging Method:
	15:30	7.25	221	61.1	5.73	PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
<i>clear/low/mod./no sheen/no odor</i>						Dedicated / Disposable bailer
						Sample at: 15:35

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-2			---	---	---	Sample for:
Calc. purge volume	14:50	1.0	195	69.5	5.39	TPHg TPHd 8260
	14:55	3.0	187	64.5	5.76	BTEX MTBE Metals
5.76	15:00	5.75	212	63.6	5.68	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
<i>clear/low/mod./no sheen/no odor</i>						Dedicated / Disposable bailer
						Sample at: 15:05

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-3			---	---	---	Sample for:
Calc. purge volume	14:25	0.5	105	66.8	5.68	TPHg TPHd 8260
	14:30	2.25	102	61.9	5.73	BTEX MTBE Metals
3.85	14:35	4.0	102	61.1	5.76	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
<i>clear/low/mod./no sheen/no odor</i>						Dedicated / Disposable bailer
						Sample at: 14:40

PURGING DATA

SHEET 2 OF 2

Job No.: NC-17 Location: 45180 Hwy 3 Trinity Date: 6/23/05 Tech: JL
 center

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-4			---	---	---	Sample for:
Calc. purge volume	13:55	1.0	156	55.9	5.88	TPHg TPHd 8260
8.86	14:00	4.5	130	65.2	5.86	BTEX MTBE Metals
	14:05	8.90	126	62.3	5.79	Purging Method:
						PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear / low / mod. / no Sheen / no odor

Sampling Method:

Dedicated / Disposable bailer

Sample at: 14:10

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-5			---	---	---	Sample for:
Calc. purge volume	13:35	3	176	68.1	6.14	TPHg TPHd 8260
6.65	13:40	5	Dried up			BTEX MTBE Metals
	13:45	7	@ 20 3 gallons.			Purging Method:
						PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear / low / poor / no Sheen / no odor

Sampling Method:

Dedicated / Disposable bailer

Sample at: 13:50

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-6			---	---	---	Sample for:
Calc. purge volume	13:15	1.0	295	65.2	6.12	TPHg TPHd 8260
8.05	13:20	4.5	250	66.8	6.10	BTEX MTBE Metals
	13:25	8.0	256	63.5	5.97	Purging Method:
						PVC bailer / Pump

COMMENTS: color, turbidity, recharge, sheen

clear / low / mod. / no Sheen / no odor

Sampling Method:

Dedicated / Disposable bailer

Sample at: 13:30

APPENDIX B



Report Number : 44537

Date : 7/6/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 6 Water Samples
Project Name : Cedar Stock
Project Number : NC-17

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 44537

Date : 7/6/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : MW-1

Matrix : Water

Lab Number : 44537-01

Sample Date : 6/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	41	0.50	ug/L	EPA 8260B	6/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Methyl-t-butyl ether (MTBE)	360	0.50	ug/L	EPA 8260B	6/30/2005
TPH as Gasoline	1800	50	ug/L	EPA 8260B	6/30/2005
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	6/30/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	6/30/2005

Sample : MW-2

Matrix : Water

Lab Number : 44537-02

Sample Date : 6/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.74	0.50	ug/L	EPA 8260B	6/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Methyl-t-butyl ether (MTBE)	12	0.50	ug/L	EPA 8260B	6/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/29/2005
Toluene - d8 (Surr)	97.9		% Recovery	EPA 8260B	6/29/2005
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	6/29/2005

Approved By:

Joel Kiff



Report Number : 44537

Date : 7/6/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : MW-3

Matrix : Water

Lab Number : 44537-03

Sample Date : 6/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/30/2005
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	6/30/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	6/30/2005

Sample : MW-4

Matrix : Water

Lab Number : 44537-04

Sample Date : 6/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/30/2005
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	6/30/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	6/30/2005

Approved By:

Joel Kiff



Report Number : 44537

Date : 7/6/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : MW-5

Matrix : Water

Lab Number : 44537-05

Sample Date : 6/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/30/2005
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	6/30/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	6/30/2005

Sample : MW-6

Matrix : Water

Lab Number : 44537-06

Sample Date : 6/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Methyl-t-butyl ether (MTBE)	1.0	0.50	ug/L	EPA 8260B	6/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/30/2005
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	6/30/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	6/30/2005

Approved By:

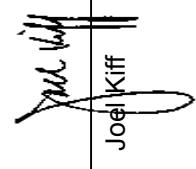
Joel Kiff

QC Report : Method Blank Data

Project Name : Cedar Stock

Project Number : NC-17

Parameter	Measured Value	Method Limit	Reporting Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Limit	Reporting Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/29/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/29/2005
Toluene - d8 (Sur)	97.9	%		EPA 8260B	6/29/2005	Toluene - d8 (Sur)	109	%		EPA 8260B	6/29/2005
4-Bromofluorobenzene (Sur)						4-Bromofluorobenzene (Sur)					
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/29/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/29/2005
Toluene - d8 (Sur)	106	%		EPA 8260B	6/29/2005	Toluene - d8 (Sur)	106	%		EPA 8260B	6/29/2005
4-Bromofluorobenzene (Sur)	102	%		EPA 8260B	6/29/2005	4-Bromofluorobenzene (Sur)	102	%		EPA 8260B	6/29/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005	Benzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005	Toluene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	6/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/30/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	6/30/2005
Toluene - d8 (Sur)	105	%		EPA 8260B	6/30/2005	Toluene - d8 (Sur)	105	%		EPA 8260B	6/30/2005
4-Bromofluorobenzene (Sur)	103	%		EPA 8260B	6/30/2005	4-Bromofluorobenzene (Sur)	103	%		EPA 8260B	6/30/2005



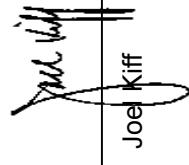
Approved By: Joe Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

QC Report : Matrix Spike/ Matrix Spike DuplicateProject Name : **Cedar Stock**Project Number : **NC-17**

Parameter	Spiked Sample	Sample Value	Spike Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Spiked Sample Percent Recov.	Relative Percent Diff.	Relative Percent Diff.	
Benzene	44537-02	0.74	40.0	40.0	39.6	ug/L	EPA 8260B	6/29/05	99.0	97.1	1.87	70-130	25	
Toluene	44537-02	<0.50	40.0	40.0	38.6	37.6	ug/L	EPA 8260B	6/29/05	96.6	94.1	2.62	70-130	25
Tert-Butanol	44537-02	<5.0	200	200	203	205	ug/L	EPA 8260B	6/29/05	102	103	1.02	70-130	25
Methyl-t-Butyl Ether	44537-02	12	40.0	40.0	45.2	45.1	ug/L	EPA 8260B	6/29/05	82.5	82.1	0.410	70-130	25
Benzene	44547-02	<0.50	40.0	40.0	40.4	39.6	ug/L	EPA 8260B	6/29/05	101	99.0	2.05	70-130	25
Toluene	44547-02	<0.50	40.0	40.0	45.1	43.7	ug/L	EPA 8260B	6/29/05	113	109	3.30	70-130	25
Tert-Butanol	44547-02	<5.0	200	200	223	224	ug/L	EPA 8260B	6/29/05	112	112	0.395	70-130	25
Methyl-t-Butyl Ether	44547-02	<0.50	40.0	40.0	36.2	35.8	ug/L	EPA 8260B	6/29/05	90.6	89.5	1.26	70-130	25
Benzene	44566-01	<0.50	40.0	40.0	39.7	39.3	ug/L	EPA 8260B	6/30/05	99.2	98.2	0.997	70-130	25
Toluene	44566-01	<0.50	40.0	40.0	43.8	42.8	ug/L	EPA 8260B	6/30/05	109	107	2.20	70-130	25
Tert-Butanol	44566-01	<5.0	200	200	219	220	ug/L	EPA 8260B	6/30/05	110	110	0.531	70-130	25
Methyl-t-Butyl Ether	44566-01	5.1	40.0	40.0	39.9	39.9	ug/L	EPA 8260B	6/30/05	86.9	87.1	0.186	70-130	25

Approved By: Joe Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

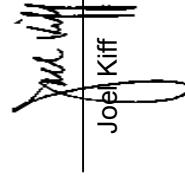
QC Report : Laboratory Control Sample (LCS)**Project Name :** Cedar Stock**Project Number :** NC-17

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	6/29/05	93.6	70-130
Toluene	40.0	ug/L	EPA 8260B	6/29/05	93.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	6/29/05	97.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	6/29/05	88.7	70-130
Benzene	40.0	ug/L	EPA 8260B	6/29/05	98.9	70-130
Toluene	40.0	ug/L	EPA 8260B	6/29/05	112	70-130
Tert-Butanol	200	ug/L	EPA 8260B	6/29/05	108	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	6/29/05	93.7	70-130
Benzene	40.0	ug/L	EPA 8260B	6/30/05	96.5	70-130
Toluene	40.0	ug/L	EPA 8260B	6/30/05	109	70-130
Tert-Butanol	200	ug/L	EPA 8260B	6/30/05	107	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	6/30/05	90.0	70-130

KIFF ANALYTICAL, LLC

Approved By:

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



Joel Kiff



2795 2nd Street, Suite 300
 Davis, CA 95616
 Lab: 530.297.4800
 Fax: 530.297.4808

Project Contact (Hardcopy or PDF To):

Andrew Lockett
 Company/Address: Blue Rock Env. Inc.,
 535 3rd St. Ste. 100 Eureka, CA

California EDF Report? Yes No

Recommended but not mandatory to complete this section:

Sampling Company Log Code: - - -

Global ID:

T-0-6-0-1-5-0-0-0-2-4

EDF Deliverable To (Email Address):

andrew@bluerockenv.com

Sampler Signature:

James Hindman

Project Address: Cedar Stock

Sampling Date: 6/23/05 Time: 15:35:33

Trinity Center Sample Designation Date: 6/23/05 Time: 15:35:33

MW-1 Container: SLEEVES Preservative: HCl Matrix: WATER

MW-2 Container: 40 ml VOA Preservative: HNO3 Matrix: SOIL

MW-3 Container: 40 ml VOA Preservative: HCl Matrix: NONE

MW-4 Container: 40 ml VOA Preservative: HCl Matrix: ICE

MW-5 Container: 40 ml VOA Preservative: HCl Matrix: ICE

MW-6 Container: 40 ml VOA Preservative: HCl Matrix: ICE

Lab No. U4537 Page 1 of 1

Chain-of-Custody Record and Analysis Request

Analysis Request		TAT		For Lab Use Only	
Lead Scav (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	12 hr/24 hr/48 hr/72 hr/1 wk			
Volatile Halocarbons (EPA 8260B)					
Lead (7421/239.2) TOTAL (X) W.E.T. (X)					
7 Oxygenates (8260B)					
5 Oxygenates/TPH Gas/BTEX (8260B)					
7 Oxygenates/TPH Gas/BTEX (8260B)					
5 Oxygenates/TPH Gas/BTEX (8260B)					
TPH Gas/BTEX/MTE (8260B)					
TPH as Motor Oil (M8015)					
BTEX/TPH Gas/MTE (8021B/M8015)					
BTEX (8021B)					

Remarks:

Sample Rec'd. Temp. °C 0.2 Therm. ID IR-3
 Attest. Date 6/24/05
 Lab. Date 6/24/05
 Coolant present Y/N

Bill to:

APPENDIX C

Chart 1
MW-1: Dissolved Contaminants vs. Time
Cedar Stock Resort
41580 State Hwy 3
Trinity Center, CA

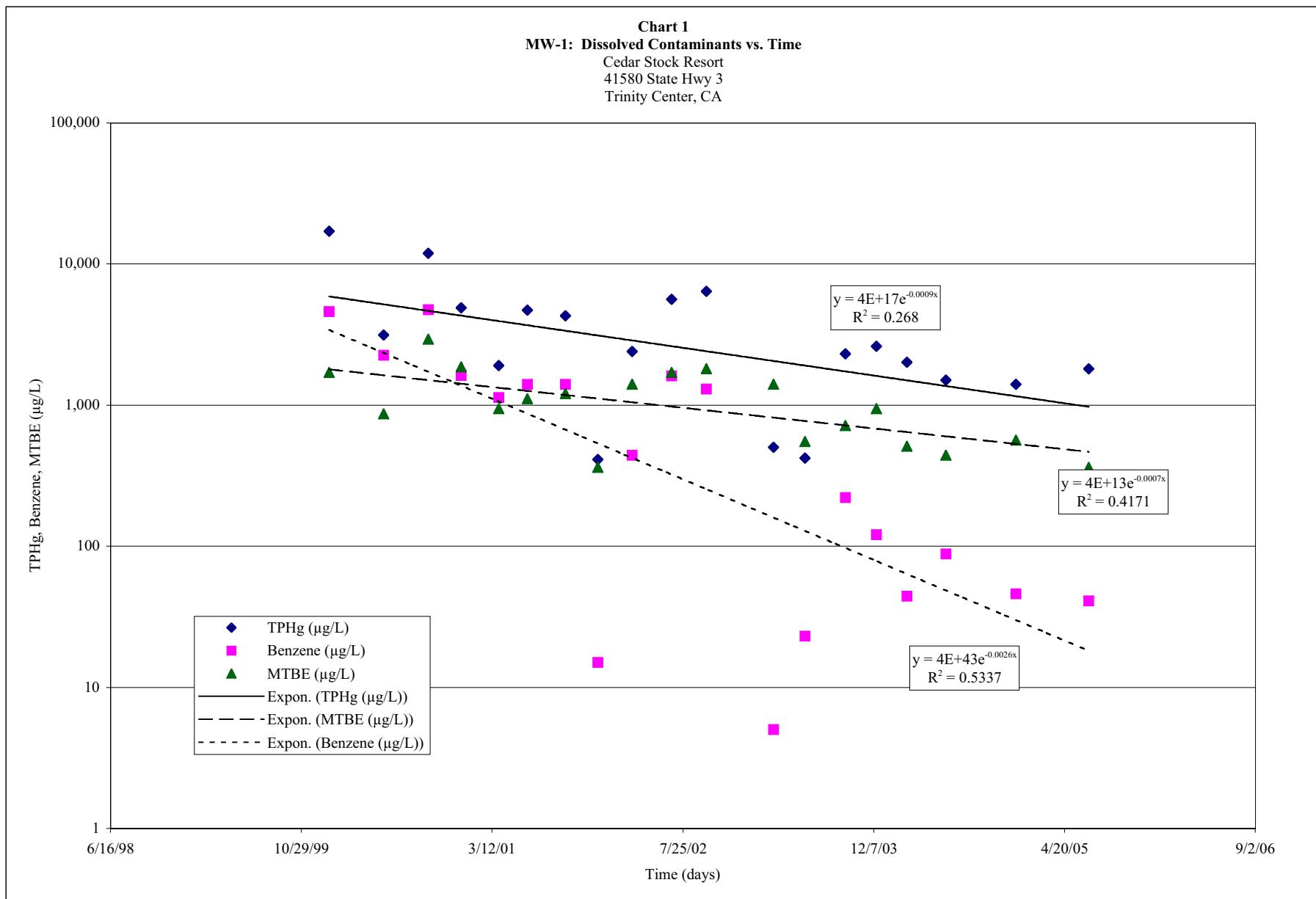
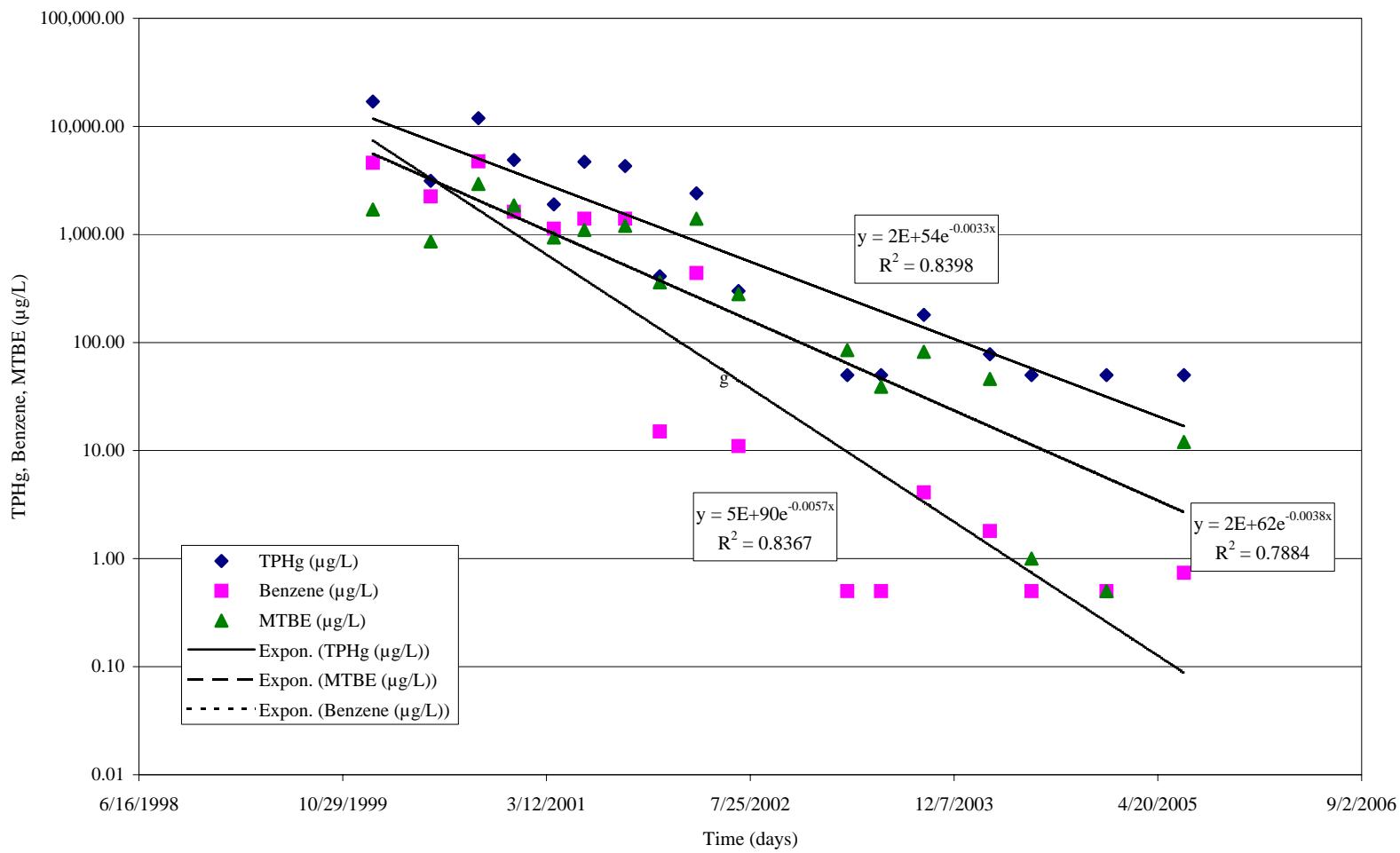


Chart 2
MW-2: Dissolved Contaminants vs. Time
 Cedar Stock Resort
 45810 State Hwy 3
 Trinity Center, CA



First-Order Decay Rates of Dissolved-Phase Concentrations 1/00 - 6/05

Cedar Stock Resort, Trinity Center, CA

Well	TPHg (%/day)	Benzene (%/day)	MTBE (%/day)
MW-1	-0.09	-0.26	-0.07
MW-2	-0.33	-0.57	-0.38

First-Order Decay Rates of Dissolved-Phase Mass 3Q03 - 2Q05

Cedar Stock Resort, Trinity Center, CA

TPHg (%/day)	MTBE (%/day)
-0.16	-0.5

See attached decay rate graphs

APPENDIX D

Chart 3
Dissolved-Phase TPHg Mass vs. Time

Cedar Stock Resort
45180 State Hwy. 3
Trinity Center, CA

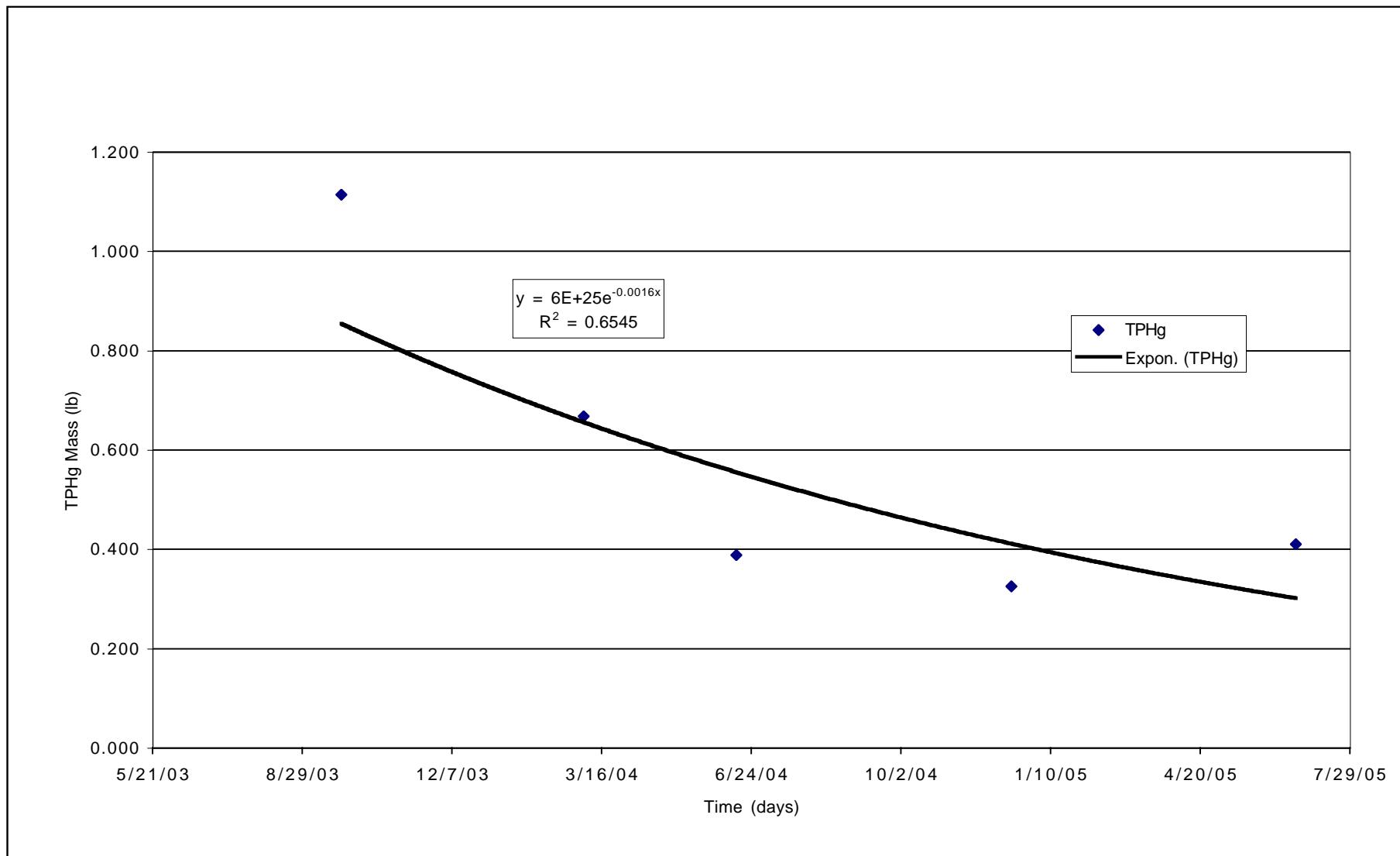
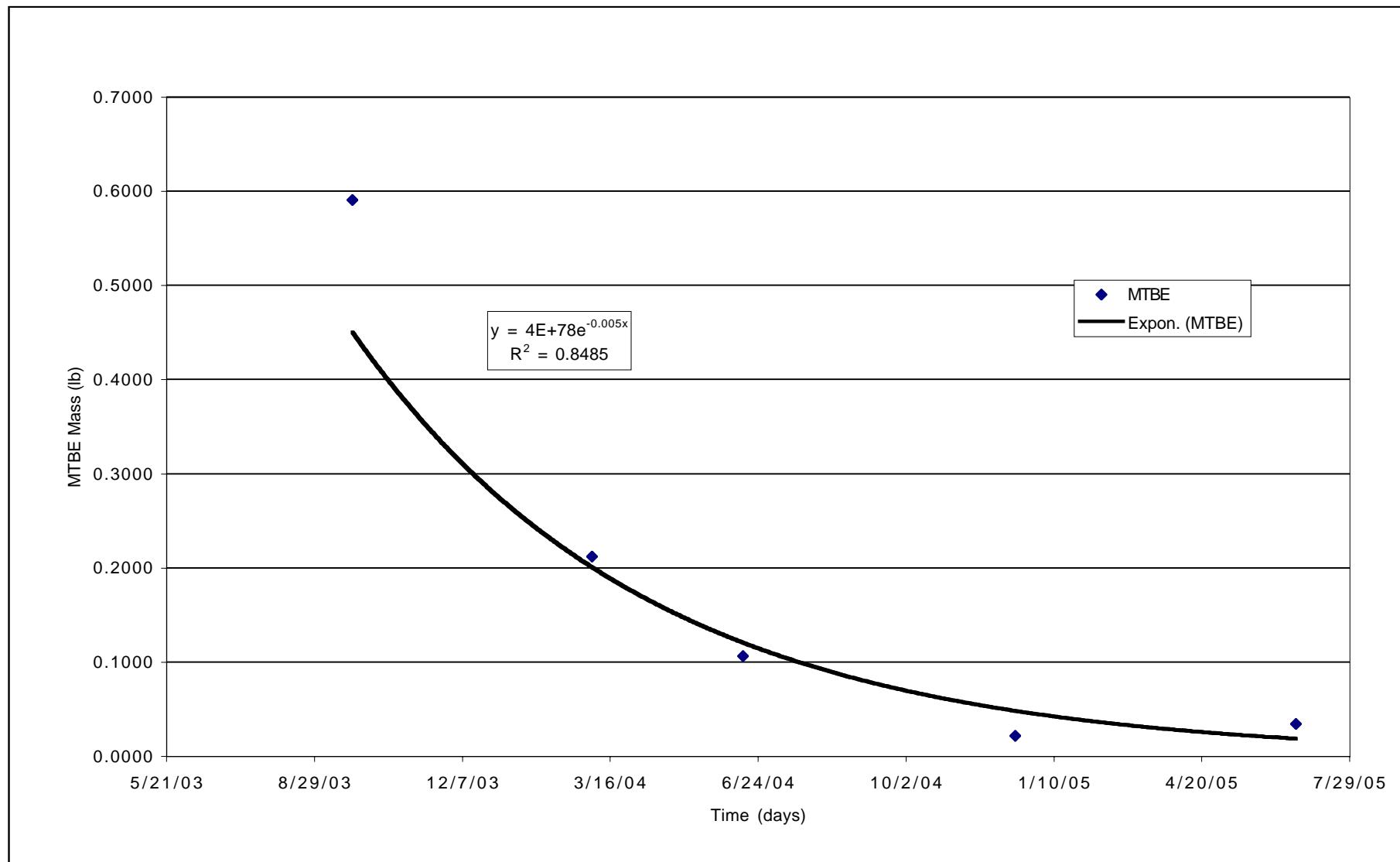


Chart 4
Dissolved-Phase MTBE Mass vs. Time

Cedar Stock Resort
45180 State Hwy. 3
Trinity Center, CA



Calculation of Residual Dissolved-Phase Contaminant Mass December 2004
 Cedar Stock Resort, Trinity Center, CA
 Project No. NC-017

Residual TPHg

Zone 1

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
1.400	267	20	0.35	1,869	2,617	0.163
					Total TPHg (lb)	0.163
					Total TPHg (gals)	0.027

Zone 2

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
0.320	1,166	20	0.35	8,162	2,612	0.163
					Total TPHg (lb)	0.163
					Total TPHg (gals)	0.027
					Total TPHg (lb.)	0.33
					Total TPHg (gal.)	0.0534

Residual MTBE

Zone 1

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.560	429	20	0.35	3,003	1,681.7	0.10474
					Total MTBE (lb)	0.10474
					Total MTBE (gals)	0.0172

Zone 2

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.0320	1,124	20	0.35	7,868	251.8	0.01568
					Total MTBE (lb)	0.01568
					Total MTBE (gals)	0.0026

Calculation of Residual Dissolved-Phase Contaminant Mass December 2004
 Cedar Stock Resort, Trinity Center, CA
 Project No. NC-017

Zone 3

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.00320	4,240	20	0.35	29,680	95.0	0.00592
						Total MTBE (lb) 0.00592
						Total MTBE (gals) 0.0010
						Total MTBE (lb.) 0.022
						Total MTBE (gal.) 0.0035

A = Area

h = thickness

V = volume = A * h

n = soil porosity (assume 35%)

TPHg mass = V (ft³) * Mean TPH conc. (unitless)

MTBE mass = V (ft³) * Mean TPH conc. (unitless)

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

lb = pound

mg/L = milligrams per liter

gal. = gallons

ft. = foot

Calculation of Residual Dissolved-Phase Contaminant Mass June 2004
 Cedar Stock Resort, Trinity Center, CA
 Project No. NC-017

Residual TPHg

Zone 1

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
1.500	291	20	0.35	2,037	3,056	0.190
					Total TPHg (lb)	0.190
					Total TPHg (gals)	0.03

Zone 2

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
0.320	1,423	20	0.35	9,961	3,188	0.199
					Total TPHg (lb)	0.199
					Total TPHg (gals)	0.03
					Total TPHg (lb)	0.39
					Total TPHg (gals)	0.06

Residual MTBE

Zone 1

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.440	429	20	0.35	3,003	1,321.3	0.08229
					Total MTBE (lb)	0.08229
					Total MTBE (gals)	0.0135

Zone 2

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.0320	1,247	20	0.35	8,729	279.3	0.01740
					Total MTBE (lb)	0.01740
					Total MTBE (gals)	0.0029

Calculation of Residual Dissolved-Phase Contaminant Mass June 2004
 Cedar Stock Resort, Trinity Center, CA
 Project No. NC-017

Zone 3

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.00320	4,560	20	0.35	31,920	102.1	0.00636
Total MTBE (lb)						0.00636
Total MTBE (gals)						0.0010
Total MTBE (lb)						0.1061
Total MTBE (gals)						0.0174

A = Area

h = thickness

V = volume = A * h

n = soil porosity (assume 35%)

TPHg mass = V (ft³) * Mean TPH conc. (unitless)

MTBE mass = V (ft³) * Mean TPH conc. (unitless)

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

lb = pound

mg/L = milligrams per liter

gal. = gallons

ft. = foot

Calculation of Residual Dissolved-Phase Contaminant Mass March 2004
 Cedar Stock Resort, Trinity Center, CA
 Project # NC-17

Residual TPHg

Zone 1

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
2.000	480	20	0.35	3,360	6,720	0.419
					Total TPHg (lb)	0.419
					Total TPHg (gals)	0.07

Zone 2

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
0.320	1,784	20	0.35	12,488	3,996	0.249
					Total TPHg (lb)	0.249
					Total TPHg (gals)	0.04
					Total TPHg (lb)	0.67
					Total TPHg (gals)	0.11

Residual MTBE

Zone 1

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.510	774	20	0.35	5,418	2,763.2	0.17210
					Total MTBE (lb)	0.17210
					Total MTBE (gals)	0.0282

Zone 2

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.0320	2,171	20	0.35	15,197	486.3	0.03029
					Total MTBE (lb)	0.03029
					Total MTBE (gals)	0.0050

Calculation of Residual Dissolved-Phase Contaminant Mass March 2004
 Cedar Stock Resort, Trinity Center, CA
 Project # NC-17

Zone 3

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.00320	6,897	20	0.35	48,279	154.5	0.00962
Total MTBE (lb)						0.00962
Total MTBE (gals)						0.0016
Total MTBE (lb)						0.2120
Total MTBE (gals)						0.0348

A = Area

h = thickness

V = volume = A * h

n = soil porosity (assume 35%)

TPHg mass = V (ft³) * Mean TPH conc. (unitless)

MTBE mass = V (ft³) * Mean TPH conc. (unitless)

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

lb = pound

mg/L = milligrams per liter

gal. = gallons

ft. = foot

Calculation of Residual Dissolved-Phase Contaminant Mass September 2003
 Cedar Stock Resort, Trinity Center, CA
 Project # NC-17

Residual TPHg

Zone 1

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
1.900	842	20	0.35	5,894	11,199	0.697
					Total TPHg (lb)	0.697
					Total TPHg (gals)	0.11

Zone 2

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
0.320	2,988	20	0.35	20,916	6,693	0.417
					Total TPHg (lb)	0.417
					Total TPHg (gals)	0.07
					Total TPHg (lb.)	1.11
					Total TPHg (gal.)	0.18

Residual MTBE

Zone 1

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.405	2,856	20	0.35	19,992	8,096.8	0.50428
					Total MTBE (lb)	0.50428
					Total MTBE (gals)	0.0827

Zone 2

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.0320	5,388	20	0.35	37,716	1,206.9	0.07517
					Total MTBE (lb)	0.07517
					Total MTBE (gals)	0.0123

Calculation of Residual Dissolved-Phase Contaminant Mass September 2003
 Cedar Stock Resort, Trinity Center, CA
 Project # NC-17

Zone 3

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.00320	8,077	20	0.35	56,539	180.9	0.01127
					Total MTBE (lb.)	0.01127
					Total MTBE (gals)	0.0018
					Total MTBE (lb.)	0.5907
					Total MTBE (gal.)	0.0968

A = Area

h = thickness

V = volume = A * h

n = soil porosity (assume 35%)

TPHg mass = V (ft³) * Mean TPH conc. (unitless)

MTBE mass = V (ft³) * Mean TPH conc. (unitless)

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

lb = pound

mg/L = milligrams per liter

gal. = gallons

ft. = foot

Calculation of Residual Dissolved-Phase Contaminant Mass June 2005
 Cedar Stock Resort, Trinity Center, CA
 Project No. NC-017

Residual TPHg

Zone 1

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
1.800	267	20	0.35	1,869	3,364	0.210
					Total TPHg (lb)	0.210
					Total TPHg (gals)	0.034

Zone 2

TPHg mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	TPHg mass (ft ³ -mg/L)	TPHg mass (lb)
0.320	1,433	20	0.35	10,031	3,210	0.200
					Total TPHg (lb)	0.200
					Total TPHg (gals)	0.033
					Total TPHg (lb.)	0.41
					Total TPHg (gal.)	0.0671

Residual MTBE

Zone 1

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.360	343	20	0.35	2,401	864.4	0.05383
					Total MTBE (lb)	0.05383
					Total MTBE (gals)	0.0088

Zone 2

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.0320	1,823	20	0.35	12,761	408.4	0.02543
					Total MTBE (lb)	0.02543
					Total MTBE (gals)	0.0042

Calculation of Residual Dissolved-Phase Contaminant Mass June 2005
 Cedar Stock Resort, Trinity Center, CA
 Project No. NC-017

Zone 3

MTBE mean (mg/L)	A (ft ²)	h (ft)	n	V (ft ³)	MTBE mass (ft ³ -mg/L)	MTBE mass (lb)
0.00320	5,929	20	0.35	41,503	132.8	0.00827
						Total MTBE (lb) 0.00827
						Total MTBE (gals) 0.0014
						Total MTBE (lb.) 0.034
						Total MTBE (gal.) 0.0055

A = Area

h = thickness

V = volume = A * h

n = soil porosity (assume 35%)

TPHg mass = V (ft³) * Mean TPH conc. (unitless)

MTBE mass = V (ft³) * Mean TPH conc. (unitless)

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

lb = pound

mg/L = milligrams per liter

gal. = gallons

ft. = foot